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SHEET METAL BATTERY USED FOR PRODUCING AN ELECTROCHEMICAL BATH FOR CLEANING SILVER.
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Patented Dec. 31, 1912.

Fig. 1.

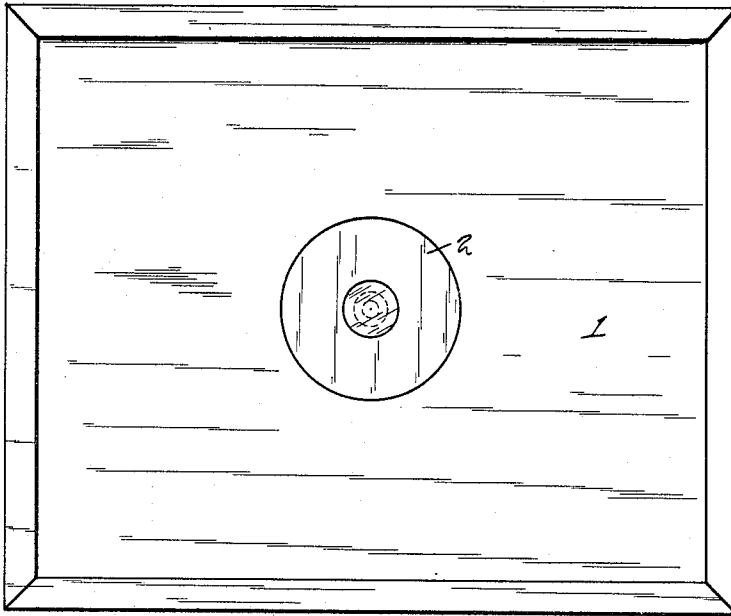


Fig. 2.



Fig. 3.



WITNESSES:

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To all whom it may concern:

Be it known that I, EDWARD A. HARDY, a citizen of the United States, residing at Madison, county of Dane, and State of Wisconsin, have invented new and useful Improvements in Sheet-Metal Batteries Used for Producing an Electrochemical Bath for Cleaning Silver, of which the following is a specification.

10 My invention relates to improvements in a device for producing electro-chemical baths for removing tarnish from silver plate and the like, and it pertains more especially, among other things, to the manner of combining sheets of copper and zinc together, which sheets are adapted to be used with a solution of salt, soda and hot water in forming a bath by which a tarnish upon silver and other plate, which has been submerged in such bath, is quickly and effectively removed.

My invention is further explained by reference to the accompanying drawings, in which—

25 Figure 1 represents a plan view, and Figs. 2 and 3 represent vertical sections thereof.

Like parts are identified by the same reference numerals throughout the several views.

30 1 is a zinc plate, and 2 is a copper plate. In the preferred form shown in Fig. 3, the zinc plate 1 is provided with a central depression 3 for the reception of the copper plate 2, and the marginal edge of such depression is upset so as to form an annular bead 4 which is bent over and adapted to engage the periphery of the copper plate 2, whereby said copper plate is securely retained in place in said depression. By the form shown in Figs. 1 and 2, the copper plate is secured to the surface of the zinc

plate by one or more rivets. The marginal edges of the zinc plate 1 are folded over upon themselves, thereby forming a strengthening bearing 5 by which the plate is stiffened and prevented from being accidentally bent out of shape.

When using the above described device, it and the silver plate to be cleaned are placed in a receptacle of the required size, when a sufficient quantity of the solution is placed in the receptacle to entirely submerge the plates to be treated. In forming the solution, I preferably use one tablespoonful of salt and one of soda to each quart of water. The water is first heated to the boiling point when such ingredients are added. Then the heated solution is poured into the receptacle and allowed to remain for about ten minutes, after which time the plate may be removed, when the same is rinsed by the application of clean water, whereby the tarnish will be at once removed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a device of the described class, a flat thin piece of sheet zinc having its marginal edges folded over upon itself to form strengthening beads, and its central portion depressed below its marginal edges, in combination with a thin piece of sheet copper, and means for securing such copper to the upper surface of the zinc sheet, substantially as specified.

In testimony whereof I affix my signature in the presence of two witnesses.

EDWARD A. HARDY.

Witnesses:

JAS. B. ERWIN,
I. D. BREMER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."